Academic Science Fund Application Form 2012/2013	
Project Name: Making Science Visible	Applicant Name & Program: Dr. Kimberley Dej (Biology and Life Sciences)
Project Level: □ Short term X Long term	Applicant Contact Information: dejkim@mcmaster.ca

Summary of Proposal:

An important part of scientific literacy is the ability to communicate ideas, theories, models, concepts, and results clearly to the public. Communicating science is at the interplay between science and the arts. From the anatomical drawings of Leonardo de Vinci[1] to the drawings of endangered species by Andy Warhol[2], science has been represented in varied ways. These representations have helped both to inform scientific communities and bring science to general audiences. Recent papers have suggested that weaving art and science can help to inspire imagination and innovation in young scientists and to inform and engage nonscientists in current research. While reflecting upon undergraduate education in Science, Technology, Engineering, and Math (STEM) we can ask the question " by staying within the borders of STEM, are we overlooking connections between the arts and innovative science? Likewise, are we missing an important opportunity to inspire and inform nonscientists?"[3].

This proposal suggests the establishment of a McMaster University Faculty of Science: Science and Art Exhibition called **Making Science Visible**. This is in the spirit of the MIT Centre for Art, Science, and Technology and the Princeton Art of Science Gallery[4]. Collaborative projects between artists and scientists have resulted in public exhibitions in many cities and publications such as the book "The Where, the Why, and the How: 75 Artists Illustrate Wondrous Mysteries of Science"[5].

Participants in the Making Science Visible exhibition will be undergraduate students who will present a scientific question or research observation in a single piece of art. This image may be a photograph, a hand drawing, a painting, a poem, or a computer-generated diagram. Accompanying the artistic representation must be a paragraph that explains the science. In the first exhibition, we ask that the participants choose research from here on McMaster University campus and that the written paragraph be based upon an interview with the researcher or lab members involved. In future years the exhibitions could have themes such as global health, environmental change, or chemical and physical sciences and the topics could be international.

This proposal seeks funds to inspire and support student interested in representing science on McMaster University campus. The project would culminate in an exhibition of the images that would be mounted in a campus venue. With student permission, framed images would be available for sale to Departments or Faculty members. The proceeds would go to fund the project in the following years. The presentations could run every other year with this continual funding.

1. https://itunes.apple.com/ca/app/leonardo-da-vinci-anatomy/id520564038?mt=8
2. http://www.warhols.com/endangeredspecies.html
3. Gurnon D, Voss-Andreae J, Stanley J (2013) Integrating Art and Science in Undergraduate Education. PLoS Biol 11(2): e1001491.
4. http://www.princeton.edu/~artofsci/gallery2011/about.php.html
5. Volvovski, J., Rothman, J., Lamothe, M. and Macaulay, D. (2012) The Where, the Why, and the How: 75 Artists Illustrate Wondrous Mysteries of Science. San Francisco: Chronicle Books.

(SUMMARY CONTINUED)

MAKING SCIENCE VISIBLE EXHIBITION:

PROJECT OBJECTIVES.

1) Inspire science students to turn their scientific interests into artistic displays
2) Inspire curiosity and imagination in fellow scientists
3) Engage nonscientists in research questions

FUNDING REQUESTS:

Requested funds are to establish the exhibition in its inaugural year. The hope is that the exhibition would be self-supporting in successive years through the sales of the pieces to be displayed in labs and departments on campus.

a) 20 bursaries of $50 each to offset the costs of preparing, printing and mounting a poster. Total: $1000.
b) $500 campus venue rental for exhibition

Project Implementation Plan:

The exhibition would be announced in September of 2013 with a projected exhibition date of late Winter/Spring 2014. It is proposed that the Making Science Visible Exhibition could aim to run during March Break when there are many visitors to campus.

Space: *To be determined.* The exhibition would stay visible for 7 to 10 days.

Media: It would be left to discretion of the scientist/artist to display their art in an appropriate manner. Students are not limited to a budget, but the bursary would help to pay for costs.

Expected impact of the proposal:

1) Inspire the imagination of undergraduate and graduate science students.
2) Provide a forum for the creative talents of our science students.
3) Highlight and explain research at McMaster University.
4) Community outreach – buildings could be open for one weekend day of exhibition for viewing by the public.

Budget Justification:

1) Funding to assemble the exhibition in the first year.
2) Small incentive for students to purchase resources so that no one is excluded from this opportunity to to limited financial resources.
3) Note that it is the intent for this to be a self-supporting venture on a bi-annual basis through sale of the exhibits within the McMaster University community for display in Departments or labs.

Project Budget: Total requested = $1 500